

# New – Products

## Lasers

### RAMAN

785nm, 980nm, 1064nm SLM from [www.torsanalaser.dk](http://www.torsanalaser.dk)

Ultra low Noise perfect for RAMAN

Ø If you wish to meet a representative of the company in September, please reply to this e-mail with in the subject line "Torsana Visit Request"

### Pico-Second Lasers

70-80pS, 70mJ @ 1064nm till 15mJ @266nm

### DPSS

10W 1064nm and 10W Green, low cost.

## Light Sources

Deuterium

Halogen

Hg

Xenon

from [http://www.lot-oriel.com/site/pages\\_de\\_en/products/light\\_sources/light\\_sources.php](http://www.lot-oriel.com/site/pages_de_en/products/light_sources/light_sources.php)

## **Photomultipliers**

A > 40% Quantum Efficiency PMT, Multi-Alkali with fiber input as in

[http://www.photonis.com/data/cms-resources/File/new/BURLE\\_RedCathodeAd\\_hi-res.pdf](http://www.photonis.com/data/cms-resources/File/new/BURLE_RedCathodeAd_hi-res.pdf)

Very low noise PMT XP22KO series

New Hard copy catalog, please reply to this e-mail with in the subject line "Photomultiplier Full color Catalog Request".

## **Electron multipliers**

Electron Multiplier with on board Power Supply

Application note on MALDI-TOF (matrix assisted Laser desorption ionization, time of flight mass spectrometry)

## **Glass Coated Wire**

An insulating layer of glass can be added to nearly any kind of metal wire by drawing the wire through a molten glass perform. The glass is chemically bonded to the wire and hermetically sealed, protecting the wire from oxidation and chemical attack.

## **RAMAN**

## **Micro-RAMAN**

Complete system for microscopic analyses

Laser

785nm, 980nm, 1064nm SLM from [www.torsanalaser.dk](http://www.torsanalaser.dk)

## **FTIR**

From [www.interspectrum.ee](http://www.interspectrum.ee) , please reply to this e-mail with in the subject line "FTIR Full color Catalog Request".

Pricing starts below \$10k

## **Cameras**

### **X-RAY**

Cameras with a scintillator deposited on a Fiber Optic Plate glued to the CCD.

## **Special offers**

## **Cameras**

Limited stock of LU-080M 640\*480 and Lu-100M 1280\*1024 pixels with USB2 from [www.lumenera.com](http://www.lumenera.com) at special discount. LU-080M at \$598, LU-100M at \$525.

1.3Mpx, 3MPx and 5Mpx USB2 cameras at great prices.

## FEATURED COMPANY

[www.torsanalaser.dk](http://www.torsanalaser.dk)



Torsana markets its Starbright laser series with the slogan:

The Ideal light source for Raman.

## The StarBright Technology

The StarBright lasers are based on the company's novel proprietary feedback technology for broad-area emitting diode lasers.

### Maximum Resolution, Speed and Sensitivity

The Starbright technology boasts the following benefits:

A high spectral and spatial resolution, because of its high quality beam and a fixed, single frequency.

Short acquisition time, as a result of the high power of the system.

A very high sensitivity, enabling even difficult examinations, due to very low ASE, amplified spontaneous emission.

A passive feedback system causes the diode laser to emit near-diffraction limited output at powers up to 2 Watts. Broad-area diode laser systems have become very reliable over the last years, and with the ability to let them produce a high quality beam, these lasers have substantial advantages in terms of cost of production, reliability, and size.

Given that the technology is completely wavelength independent, a wide range of StarBright products at customer defined wavelengths and powers are available.

The specifications enabled by the StarBright technology:

Wavelength	635 - 1480 nm, where diodes are available
Output power (CW)	0,2 - 2 Watt
Line width	Single frequency
Beam quality	$M^2 < 2,0$
Beam pointing stability	100 mrad / 3 min
Polarization	Vertically (100 : 1).
Power consumption	< 50 W
Expected lifetime	> 10,000 hours
Warm up time	Typically 1-2 min

Ambient temperature range	15 - 35 °C
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## Customization

If you have any suggestions for specific wavelengths or power levels for your application, please contact us.

Through our knowledge and intensive research in this technology, Torsana Laser Technologies A/S will be a competent and reliable partner in new development projects.

## The standard products offered include:

### StarBright 785

**StarBright 785 Series:** Perfect for Raman Spectroscopy

The StarBright 785 series is based on the company's novel proprietary feedback technology for broad-area emitting diode lasers, delivering ideal specifications for photonic analysis applications such as Raman spectroscopy.

High power levels can be obtained while maintaining excellent beam quality, enabling short acquisition time as well as ultra high spatial and spectral resolution.

The athermal design gives the laser very stable performance through wide temperature sweeps and the good beam quality makes high coupling efficiency to small fibers possible.

Through our knowledge and intensive research in this laser type, Torsana Laser Technologies A/S is a competent and reliable partner in new development projects.

### StarBright 785 S

The Starbright 785 S is specifically designed for macro applications of Raman spectroscopy. It has very reliable and temperature stable performance and a good coupling efficiency to 100 and 50 um fiber. It is to be utilized with the 2 W controller.

Download specification sheets: [Starbright 785 S.pdf](#)

### **StarBright 785 XM**

The Starbright 785 XM laser is designed for Microscope Raman Spectroscopy, but can also be applied in interferometry, Lidar and frequency doubling. Good coupling efficiency to single mode fiber. Uses the 4 W controller.

Download specification sheets: [Starbright 785 XM.pdf](#) \_

Due to excellent repression of ASE, it is possible to collect spectra very close to the laser line and very weak peaks. Single-frequency operation of the laser ensures that the only influence on resolution is the from the spectrometer.

Download Raman spectrum of sulphur taken with the Starbright 785 XM laser: [Sulphur.pdf](#)

The laser performs excellent, even under the influence of strong room temperature change. This means that the wavelength drift of the laser can be reduced to a few pm over 100's of hours in a stable laboratory environment.

Download curve of laser performance vs. ambient temperature change: [TempTest.pdf](#)

Every laser is delivered with this test report to ensure complete specification fulfilment.

### **Compact Controller**

The controller is very compact and is designed for easy integration into OEM equipment. The controller is included in the laser system.

Download specification sheet: [Starbright Controller 2W.pdf](http://www.torsanalaser.com/starbrightcontroller2w.pdf)  
<http://www.torsanalaser.com/starbrightcontroller2w.pdf>

Download specification sheet: [Starbright Controller 4W.pdf](#)

Prices DDP, Israel and don't include 15.5% VAT

To unsubscribe send an e-mail to [moshe@ilphotonics.com](mailto:moshe@ilphotonics.com) and write in the subject field "unsubscribe".

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**Photonics with Know How**

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